

16

NGC-145 / 000312-040

Remarks

Reconsideration of the application, and allowance of all claims pending are respectfully requested. Claims 1-3, 6-15, and 17-22 are pending.

RECEIVED
CENTRAL FAX CENTER
JUL 19 2006

Claim Rejections - 35 U.S.C. §§ 102 and 103

Claims 1-3, 6-9, 11, 14-15, 17-19, and 21 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Katt et al. (U.S. Patent App. Pub. No. 2003/0044056; "Katt"). Claims 10, 20, and 22 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Katt in view of Mullins et al. (U.S. Patent No. 6,301,380; "Mullins") and King (U.S. Patent App. Pub. No. 2003/0161524). Claim 12 was rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Katt in view of King. Claim 13 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Katt in view of Fox et al. (U.S. Patent No. 4,747,299; "Fox"). These rejections are respectfully, but most strenuously, traversed.

CLAIMS 1, 15 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied references, with or without modification or combination, assuming, *arguendo*, that the modification or combination of the Office Action's citations to the applied references is proper, do not teach or suggest the computer component that employs the one or more of the one or more irradiation components to emit the one or more of the one or more radiation wavelengths for the transmittance through one or more of the one or more packaging materials, wherein the one or more of the one or more radiation wavelengths reflect off a carrier of the one or more of the one or more packaging materials to the one or more imaging devices, as recited in applicants' independent claim 1.

For explanatory purposes, applicants discuss herein one or more differences between the claimed invention and the Office Action's citations to Katt. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the Office Action's citations to Katt correspond to the claimed invention.

Katt (paragraph 15, lines 1-3; FIG. 3) discloses:

The carrier tape 34 is best illustrated in FIG. 3, and includes a pair of flanges 72 running along its length, and compartments 76 formed between the flanges 72.

Katt (paragraph 17, lines 1-3; FIGS. 1-2) further discloses:

Referring again to FIGS. 1 and 2, the transport 28 places a single part 64 into each compartment 76 of the carrier tape 34.

Katt (paragraph 19, lines 1-3; FIG. 4) further discloses:

Adhesive is used to seal the cover tape 41 to the flanges 72 of the carrier tape 34 and thereby create a composite tape including the carrier/cover tape combination.

Katt (paragraph 25) then discloses:

To further reduce false rejections, a contrast should be maintained between the seal track 94 edges and the areas on either side of the seal track 94, so that the seal track 94 edges are clearly visible. This may be accomplished by using carrier tape 34 having a light-absorptive color (e.g., black in the preferred embodiment), and cover tape 41 that is light-diffusive (e.g., semi-transparent cover tape in the preferred embodiment). The CDI 104 lighting is largely absorbed by the carrier tape 34, and is diffused by the cover tape 41 such that the cover tape 41 appears to be a light color against the dark-color background of the carrier tape flanges 72 when viewed with the CASI module camera 100. When the cover tape 41 is bonded to the carrier tape 34, the cover tape 41 becomes substantially transparent to light in the seal tracks 94, and the seal tracks 94 appear as dark lines in the light-colored cover tape 41 because the dark carrier tape 34 material shows through.

Katt discloses placing the parts 64 into the compartments 76 of the carrier tape 34. The parts 64 are then sealed in the carrier tape 34 by the cover tape 41. Applicant respectfully

submits that the carrier tape 34 and the cover tape 41 comprise the packaging materials for the parts 64. Accordingly, the carrier tape 34 is not a "carrier" of the one or more of the one or more packaging materials. Applicant notes that the "CDI 104 lighting is largely absorbed by the carrier tape 34" due to the "light-absorptive color (e.g., black in the preferred embodiment)" of the carrier tape 34. The CDI 104 therefore does not emit lighting *through* the packaging materials where it is reflected off a carrier of the packaging materials. Katt fails to disclose the computer component that employs the one or more of the one or more irradiation components to emit the one or more of the one or more radiation wavelengths for the transmittance through one or more of the one or more packaging materials, wherein the one or more of the one or more radiation wavelengths reflect off a carrier of the one or more of the one or more packaging materials to the one or more imaging devices.

Accordingly, the Office Action's citation to Katt fails to satisfy at least one of the limitations recited in applicants' independent claim 1.

The Office Action's citations to Katt all fail to meet at least one of applicants' claimed features. For example, there is no teaching or suggestion in the Office Action's citations to Katt of the computer component that employs the one or more of the one or more irradiation components to emit the one or more of the one or more radiation wavelengths for the transmittance through one or more of the one or more packaging materials, wherein the one or more of the one or more radiation wavelengths reflect off a carrier of the one or more of the one or more packaging materials to the one or more imaging devices, as recited in applicants' independent claim 1.

For all the reasons presented above with reference to claim 1, claims 1 and 15 are believed neither anticipated nor obvious over the art of record. The corresponding dependent

claims are believed allowable for the same reasons as independent claims 1 and 15, as well as for their own additional characterizations.

CLAIMS 10, 20, AND 22 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied references, with or without modification or combination, assuming, *arguendo*, that the modification or combination of the Office Action's citations to the applied references is proper, do not teach or suggest the computer component that employs the one or more optical components to filter out the one or more absorption spectrums from the one or more of the one or more radiation wavelengths, as recited in applicants' independent claim 10.

For explanatory purposes, applicants discuss herein one or more differences between the claimed invention and the Office Action's citations to Katt, Mullins, and King. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the Office Action's citations to Katt, Mullins, or King correspond to the claimed invention.

Katt (abstract) discloses:

A method for inspecting composite tape including cover tape bonded to carrier tape comprises capturing a digital image of the composite tape, dividing the seal tracks within the image into a plurality of fragments or segments. The method also provides for analyzing each segment of the seal track for the presence or absence of the seal and for the width of the seal, and assigning a failing grade to the segment if the seal is not continuous within the segment or if the seal has a width less than a minimum width within the segment. The method further provides for notifying a machine operator of a defective seal if the number consecutively-failed segments in the seal track exceeds a defect tolerance. The method also provides for measuring the spacings of the carrier tape edge, cover tape edge, and seal tracks from each other and comparing those spacings to acceptable values.

Katt discloses the method for inspecting composite tape. Katt fails to disclose the computer component that employs the one or more of the one or more imaging devices to determine the one or more absorption spectrums of the one or more graphics. Katt fails to disclose the computer component that employs the one or more optical components to filter out the one or more absorption spectrums from the one or more of the one or more radiation wavelengths. This point has been conceded by the Office Action (page 13, lines 1-2).

Accordingly, the Office Action's citation to Katt fails to satisfy at least one of the limitations recited in applicants' independent claim 10.

Mullins (column 3, lines 22-32) discloses:

The inspection system may also take advantage of the blocking characteristics of a poly wrap film which has printing upon it. The image printed upon the film will act to block light transmission in a particular pattern, or reduce it. The system can rapidly "learn" this light scattering by allowing it to store acceptable images in its database. Then, occluded light patterns are learned as acceptable. Other wrap patterns likewise may be learned in a manner similar to the system's initial programming with conventional packaging fold and surface images.

Mullins discloses taking advantage of the blocking characteristics of the image and learning a particular pattern. As is known in the art, light (e.g., electromagnetic radiation) comprises a large range of wavelengths, for example, a subset of the range is the visible spectrum which is typically between 400 to 700 nanometers in wavelength (see, for example, http://en.wikipedia.org/wiki/Visible_spectrum). While Mullins discloses that the printed image blocks a light transmission in a pattern, Mullins fails to disclose or determine any specific range of the electromagnetic spectrum. For example, if the printed image appears as only a green color, the absorption spectrum may be around 555 nanometers. Mullins fails to disclose the computer component that employs the one or more optical components to filter out the one or more absorption spectrums from the one or more of the one or more radiation wavelengths.

Mullins also fails to disclose the computer component that employs the one or more of the one or more imaging devices to determine the one or more absorption spectrums of the one or more graphics.

In addition, Mullins teaches away from filtering the absorption spectrum of the image because doing so would substantially reduce or eliminate the blocking characteristics of the image, which Mullins relies on to accept packages. Filtering the absorption spectrum of the image would destroy an advantage of Mullins (column 3, lines 22-32).

Accordingly, the Office Action's citation to Mullins fails to satisfy at least one of the limitations recited in applicants' independent claim 10.

King (paragraph 20) discloses:

The ultraviolet light source 26 may be fitted with one or more filters 30. The ultraviolet light source 26 is shown with a filter 30 designed to block visible light. Other filters may also be used so as to allow illumination by a limited spectrum of ultraviolet light.

King discloses using a filter that allows illumination by only a limited spectrum of light. King fails to disclose the computer component that employs the one or more of the one or more imaging devices to determine the one or more absorption spectrums of the one or more graphics. King fails to disclose the computer component that employs the one or more optical components to filter out the one or more absorption spectrums from the one or more of the one or more radiation wavelengths.

Accordingly, the Office Action's citation to King fails to satisfy at least one of the limitations recited in applicants' independent claim 10.

The Office Action's citations to Katt, Mullins, and King all fail to meet at least one of applicants' claimed features. For example, there is no teaching or suggestion in the Office Action's citations to Katt, Mullins, or King of the computer component that employs the one or

more optical components to filter out the one or more absorption spectrums from the one or more of the one or more radiation wavelengths, as recited in applicants' independent claim 10.

For all the reasons presented above with reference to claim 10, claims 10, 20, and 22 are believed neither anticipated nor obvious over the art of record. The corresponding dependent claims are believed allowable for the same reasons as independent claims 10, 20, and 22, as well as for their own additional characterizations.

CLAIMS 12 AND 21 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied references, with or without modification or combination, assuming, *arguendo*, that the modification or combination of the Office Action's citations to the applied references is proper, do not teach or suggest the one or more compounds within the one or more of the one or more packaging materials that react to the one or more of the one or more radiation wavelengths of the one or more fluorescing excitation sources, wherein the one or more compounds emit one or more fluorescing wavelengths, as recited in applicants' independent claim 12.

For explanatory purposes, applicants discuss herein one or more differences between the claimed invention and the Office Action's citations to Katt and King. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the Office Action's citations to Katt or King correspond to the claimed invention.

Katt (paragraph 23) discloses:

A cloudy-day illuminator ("CDI") 104 (FIG. 5) provides cloudy-day illumination within the CASI module 52. A preferred and commercially-available CDI is RVSI Northeast Robotics model no. NER SCDI-75. The height from the bottom of the CDI 104 to the carrier tape 41 is preferably no greater than 0.3" (7.6 mm).

Katt discloses the cloudy-day illumination within the CASI module. As is known in the art, the "cloudy-day illuminator" is a diffuse light source (see, for example, <http://www.nerlite.com/CDI.html>). Also known in the art, fluorescence is where light of a first wavelength (e.g., a fluorescing excitation wavelength) is absorbed by an object, which then emits light of a second wavelength (e.g., the fluorescing wavelength) (see, for example, <http://en.wikipedia.org/wiki/Fluorescence>). Katt fails to disclose a fluorescing excitation source and fails to disclose the one or more compounds within the one or more of the one or more packaging materials that react to the one or more of the one or more radiation wavelengths of the one or more fluorescing excitation sources, wherein the one or more compounds emit one or more fluorescing wavelengths.

Accordingly, the Office Action's citation to Katt fails to satisfy at least one of the limitations recited in applicants' independent claim 12.

King (paragraph 23) discloses:

The ultraviolet light source 26 may be fitted with one or more filters 30. The ultraviolet light source 26 is shown with a filter 30 designed to block visible light. Other filters may also be used so as to allow illumination by a limited spectrum of ultraviolet light.

King discloses the ultraviolet light source 26. King fails to disclose a fluorescing excitation source and fails to disclose the one or more compounds within the one or more of the one or more packaging materials that react to the one or more of the one or more radiation wavelengths of the one or more fluorescing excitation sources, wherein the one or more compounds emit one or more fluorescing wavelengths.

Accordingly, the Office Action's citation to King fails to satisfy at least one of the limitations recited in applicants' independent claim 12.

24

NGC-145 / 000312-040

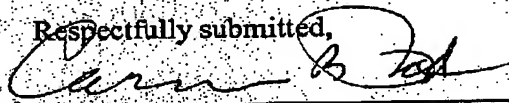
The Office Action's citations to Katt and King all fail to meet at least one of applicants' claimed features. For example, there is no teaching or suggestion in the Office Action's citations to Katt or King of the one or more compounds within the one or more of the one or more packaging materials that react to the one or more of the one or more radiation wavelengths of the one or more fluorescing excitation sources, wherein the one or more compounds emit one or more fluorescing wavelengths, as recited in applicants' independent claim 12.

For all the reasons presented above with reference to claim 1, claims 12 and 21 are believed neither anticipated nor obvious over the art of record. The corresponding dependent claims are believed allowable for the same reasons as independent claims 12 and 21, as well as for their own additional characterizations.

Withdrawal of the §§ 102 and 103 rejections is therefore respectfully requested.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney.

Respectfully submitted,



Carmen B. Patti
Attorney for Applicant
Reg. No. 26,784

Dated: July 19, 2006

CARMEN B. PATTI & ASSOCIATES, LLC
Customer Number 32205